



## **The Role of Interpersonal Communication in Preventing Unsafe Abortion in Communities: The Dialogues for Life Project in Nepal**

**ALLISON BINGHAM, JENNIFER KIDWELL DRAKE,  
AND LORELEI GOODYEAR**

PATH, Seattle, Washington, USA

**C. Y. GOPINATH**

International Communications Consultant, Bangkok, Thailand

**ANNE KAUFMAN AND SANJU BHATTARAI**

Development Consultants, Kathmandu, Nepal

*Legal, procedural, and institutional restrictions on safe abortion services—such as laws forbidding the practice or policies preventing donors from supporting groups who provide legal services—remain a major access barrier for women worldwide. However, even when abortion services are legal, women face social and cultural barriers to accessing safe abortion services and preventing unwanted pregnancy. Interpersonal communication interventions play an important role in overcoming these obstacles, including as part of broad educational- and behavioral-change efforts. This article presents results from an interpersonal communication behavior change pilot intervention, Dialogues for Life, undertaken in Nepal from 2004 to 2006, after abortion was legalized in 2002. The project aimed to encourage and enable women to prevent unplanned pregnancies and unsafe abortions and was driven by dialogue groups and select community events. The authors' results confirm that a dialogue-based interpersonal communication intervention can help change behavior*

The implementation of the Dialogues for Life project was the result of extensive collaboration. The success of the project and the findings outlined in this article would not have been possible without the support of numerous organizations. We especially thank the Nepal Ministry of Health and Population Family Health Division for the opportunity to develop the behavior change communication (BCC) strategy with them and the BCC Working Group. The tireless efforts of our implementation partners NAMUNA and the Family Planning Association of Nepal were critical to the success of the project. We are also indebted to the Center for Research on Environment Health and Population Activities for the foundational research they conducted before the implementation of Dialogues for Life. We recognize the indispensable programmatic support of the Technical Committee for the Implementation of Comprehensive Abortion Care and of Ipas. This project was generously supported financially by two anonymous donors, as well as by the William and Flora Hewlett Foundation and the Fred H. Bixby Foundation. Last, we express our gratitude for the generosity of women and men in Nepal who helped to shape the BCC strategy and who boldly used new dialogue techniques to break the silence around previously taboo reproductive health topics.

Address correspondence to Allison Bingham, PATH, P.O. Box 900922, Seattle, WA 98109, USA. E-mail: [abingham@path.org](mailto:abingham@path.org)

*and that this method is feasible in a low-resource, low-literacy setting. Dialogue groups play a key role in addressing sensitive and stigmatizing health issues such as unsafe abortion and in empowering women to negotiate for the social support they need when making decisions about their health.*

Every year, 42 million women worldwide seek abortions for unintended pregnancies, and 20 million resort to unsafe abortions—98% of them in developing countries (World Health Organization, 2007). Legal, procedural, and institutional restrictions on safe abortion services—such as laws forbidding the practice or policies preventing donors from supporting groups who provide legal services—remain a major access barrier for women worldwide (Berer, 2000; Feters, Vonthanak, Picardo, & Rathavy, 2008; Fredrick, 2007). Women also face a variety of social and cultural obstacles to accessing safe abortion services, including limited knowledge about their options, even in settings in which the services are legal and effectively available (Vekemans, de Silva, & Hurwitz, 2008). In South Africa, where abortion was legalized in 1997, hospitals continue to treat women who have had unsafe abortions, mainly because of lack of knowledge regarding the legal situation and how to access safe services (Jewkes et al., 2005). Another study found that 32% of women in the province of Western Cape—a relatively affluent region of South Africa—did not know that abortion was legal (Morrone, Myer, & Tibazarwa, 2006). A study in Nepal, where abortion was legalized in 2002, found that many women still have insufficient knowledge regarding safe abortion services and their cost (Singh & Jha, 2007).

Social and cultural barriers to safe abortion go beyond lack of knowledge, however, and include lack of social support and stigma. A study in Nepal found that even when women were aware of safe abortion services, they did not reveal unintended pregnancies to their husbands, families, or friends, and some tried to secretly self-induce abortion (Puri, Ingham, & Matthews, 2007). In families and among couples, many sexual and reproductive health topics, including abortion, can be highly stigmatized and charged with emotion, shame, and fear (Kumar, Hessini, & Mitchell, 2009). For example, Nepali women have historically had little decision-making power regarding their lives and health; instead, decisions about their reproductive health and use of family planning rest mainly with husbands and in-laws. Pressure for early marriage and childbearing is strong. Women are traditionally unable to discuss sexual and reproductive health issues openly with their husbands or in-laws. Therefore, to make abortion safer and more accessible for women, initiatives that continue to challenge the status quo and patriarchal traditions that keep abortion restricted and stigmatized are critical (Kumar et al.).

The decision to seek an abortion is situated and carried out in the context of broader family and social networks. Brems and Griffiths (1993), in their review of sessions addressing issues relating to women in development given at the 18th Annual International Health Conference, observed that "...women's health is strongly conditioned by the political and economic environment in which they live, the society of which they are a part, and the cultural belief that organizes and gives meaning to their lives" (pp. 257). This society and cultural belief system contain a wide range of influences, including husbands or partners, families, friends, and communities. Nyanzi, Nyanzi, and Bessie (2005) documented the significant role of men—as husbands, partners, fathers, brothers, or sons—in women's abortion decisions in southwestern Uganda and noted that interventions and policies should reflect this reality.

Puri et al. (2007) constructed detailed case histories of 30 young married Nepali women and men. They found that decisions around unintended pregnancy and abortion are dynamic and situation specific, and that the roles of husbands, health service providers, and others varies depending on the situation. In recognition of these needs, health communications campaigns are increasingly implementing interpersonal communication (IPC) approaches. Noteworthy among these are interventions and community-engagement processes based on *dialogue*—defined as an iterative turn-taking process in which each participant seeks to clarify what others believe and understand as well as one's own beliefs and understanding—that focuses on interpersonal context, including family relationships and social support networks as entry points for social change.

The importance of these kinds of processes—including stories/dialogue for health promotion knowledge development—has also been noted by a number of researchers (Duggan, 2006; Figueroa, Kincaid, Manju, & Lewis, 2002; Labonte, Feather, & Hills, 1999). In particular, the use of these techniques has been applied to interventions around highly stigmatized topics such as HIV/AIDS and tuberculosis (Morrill & Noland, 2006; Valente & Fosados, 2006). Different IPC approaches have been used to promote women's reproductive health, including Pathfinder International's peer-based approach to family planning promotion in India (Daniel, Masilamani, & Rahman, 2008), and a group-based participatory learning process that was shown to significantly improve birth outcomes in Nepal (Manandhar et al., 2004). However, to our knowledge, dialogue group-based IPC approaches have not been used in the effort to reduce unsafe abortions.

A dialogue-based IPC process can help to fill the void that exists in current efforts to reduce unsafe abortions at the community level in two important ways. Interventions that emphasize dialogue-based IPC are particularly suited for promoting openness and discussion about sensitive, stigmatizing, or exposing topics among families, couples, and peer networks in order to ensure good health outcomes (Duggan, 2006; Valente & Fosados, 2006). Duggan found that silence or avoidance reduces the ability of people to receive the necessary social support that would enable them to cope with health problems, access appropriate care, and make health-related decisions. IPC interventions help participants break through this silence and improve their ability to discuss these sensitive health issues with others through dilemma-based role playing, dialogue, and communication skills building.

Second, dialogue-based IPC can also build important community engagement platforms in which dialogue group members become catalysts in transmitting information to their personal and peer networks. The Dialogues for Life processes are consistent with the Communication for Social Change model, in which community dialogue and collective action work together to produce social change (Figueroa et al., 2002). The Communication for Social Change posits that once a new idea, opinion, behavior, or innovation has been introduced by a change agent through a mass-media platform, it is through dialogue-based IPC that this information is most credibly diffused through communities (Rogers, 1995). This article presents findings from a program evaluation of the Dialogues for Life project in Nepal, a dialogue group-based IPC pilot intervention aimed at encouraging and enabling women to prevent unplanned pregnancies and unsafe abortion. This program was undertaken in a setting in which safe abortion services were newly available because of legal, policy, and service delivery changes. We review the merits of a dialogue-based IPC approach for addressing potentially sensitive and stigmatizing health issues, such

as unsafe abortion, as part of a comprehensive package of health communication efforts aimed at raising understanding and promoting acceptability and use of services at the community level. We conclude with recommendations for replication and scale-up on the basis of this experience.

## **Background**

### ***Policy Change in Nepal***

In March 2002, the abortion law in Nepal—one of the most restrictive in the world—was liberalized to allow abortion up to 12 weeks with a woman's consent, up to 18 weeks if pregnancy is the result of rape or incest, and anytime if the physical or mental health of the woman is at risk or the fetus is deformed (Family Health Division, Center for Research on Environment Health and Population Activities, Forum for Women Law and Development, Ipas, and the Program for Appropriate Technology in Health [PATH], 2005). The Technical Committee for Implementation of Comprehensive Abortion Care, formed by the Government of Nepal and various nongovernmental organizations, requested technical assistance from PATH to increase community awareness about new abortion laws and services through a behavior change communication (BCC) strategy and to help women overcome social and familial barriers to safe abortion access. The Technical Committee for Implementation of Comprehensive Abortion Care felt that a strategy was needed to enlist community members in a dialogue process that would encourage them to reflect upon their attitudes and beliefs about abortion—and eventually adopt new, healthier behaviors.

The process used by PATH, the BCC working group, and community stakeholders to systematically craft a comprehensive communication strategy for engaging communities to change unsafe abortion practices is outlined elsewhere (Center for Research on Environment Health and Population Activities, 2005; PATH, 2005; PATH & Ipas, 2005). The strategy outlines a three-pronged approach: (a) advocacy; (b) information, education, and communication; and (c) dialogue-based IPC. For each component, the strategy defines key audiences, their influencers, the media channels that reach them, a set of behavior change objectives, and suggested intervention activities.

### ***Dialogues for Life Intervention***

Dialogues for Life, an IPC intervention outlined in the communication strategy document, aimed to promote dialogue, critical reflection, problem solving, and experience sharing among members of key audiences through facilitated dialogue groups. The 9-month pilot intervention took place in two sites: Kathmandu Valley and Rupandehi District. Two Nepalese nongovernmental organizations with significant experience working on reproductive health issues at the community level partnered with PATH to carry out the intervention and assist with program evaluation activities. NAMUNA was chosen for Rupandehi, and the Family Planning Association of Nepal (FPAN), Valley Branch, for the Kathmandu Valley. FPAN organized dialogue groups in urban Kathmandu and neighboring Bhaktapur, a periurban setting outside Kathmandu. Recruitment was voluntary; FPAN and NAMUNA held community orientation meetings where they shared the objectives and the format of the groups, and interested individuals enrolled at this time. PATH also provided training and ongoing technical support.

Staff and facilitators from NAMUNA and FPAN were trained using a process in which participants were led through logical and sequential modules each lasting a few days, with each module building on the previous one and separated by 1 or 2 months. This approach is well suited to environments in which geography, politics, literacy, travel, and/or other factors pose challenges (PATH & Ipas, 2005).

The Dialogues for Life approach aimed to promote deep understanding that could stimulate behavior change through an intensive process of dialogue, critical inquiry, and critical reflection, concepts consistent with the Social Constructivist educational orientation (Rogoff, Matusov, & White, 1996). The intervention itself, including a description of facilitation techniques and training modules, is documented elsewhere (PATH, 2007). Through facilitated discussion involving role playing, games, story/dialogue, and information sessions, individuals begin to critically identify and self-assess the values, attitudes, and beliefs that underlie their health behaviors, examine options for change, and adopt new strategies and behaviors. For example, negotiation skills evolve as group members share stories of what worked and what did not in their own experiences. Acting out dilemmas that women face and jointly creating solutions through role plays (Academy for Educational Development/CHANGE Project & Save the Children/Malawi, 2002) and other interactive, participatory techniques enable old behaviors to be supplanted by new ones. Dialogue groups in this intervention explored relevant reproductive health topics, including unwanted pregnancy, safe abortion, family planning, safe motherhood, nutrition, reproductive tract infections, HIV and AIDS, sex before and outside of marriage, polygamy, rape, and social issues affecting women's status, such as trafficking, gender discrimination, son preference, extramarital affairs, and social taboos related to menstruation. This approach also promotes the diffusion of specific examples of behavior change to wider social networks through "magnification of success stories," a technique refined by C. Y. Gopinath and described elsewhere (PATH, 2007). It is through the sharing of actual behavior change stories in public venues that difficult topics are made accessible in the context of credible personal experience and then inspire, motivate, and catalyze change in the larger community.

## **Methods**

We designed a process-and-outcomes evaluation to assess the effect of the Dialogues for Life intervention on program participants. The evaluation was guided by two primary research questions (Table 1). We used a participatory mixed-method evaluation approach in which we used a survey, session records, case studies, and checklist data to evaluate the program (Table 1; Datta, 1997; Frechtling & Sharp, 1997). FPAN and NAMUNA played an active role in instrument design, data collection, and analysis.

### ***Process Evaluation***

Process evaluation activities were undertaken throughout the intervention period. These included monitoring of dialogue group sessions and community events by PATH trainers as well as documentation by facilitators of the techniques used and topics covered during each session in order to assess how the intervention was being delivered (treatment integrity). Session tracking forms were filled in by facilitators and then collected by supervisors for further processing. Personal stories of new

**Table 1.** Primary research questions, data-collection tools, and measures

1. How effectively are dialogue group members able to negotiate pregnancy-related decisions that are likely to result in either avoiding unwanted pregnancy through the use of family planning and emergency contraception or choosing safe abortion as the solution for terminating an unwanted pregnancy?
2. How effectively are dialogue group members able to communicate with and influence other community members' knowledge, communication, and access with regard to family planning, safe abortion, and other reproductive health issues?

Data-collection tool	Purpose	Measure or indicator
Facilitator session summary form	Process evaluation To summarize dialogue group session activities	Overall impressions of the session Stories of changes in attitudes, new behaviors, or influences
Community event log	To observe how dialogue groups can serve as catalysts in their communities through sponsored venues	Completed for each community event in which dialogue group members participate throughout the evaluation period: <ul style="list-style-type: none"> <li>– Who organized the event?</li> <li>– Purpose</li> <li>– Theme/topics covered</li> <li>– Questions asked</li> <li>– Insights for planning future activities</li> </ul>
Dialogue group participant: Anonymous group-based assessment	Outcomes evaluation To assess knowledge and skills gained in the following: <ul style="list-style-type: none"> <li>– Reproductive biology</li> <li>– Abortion law</li> <li>– Safe abortion practice recommendations</li> <li>– Family planning/emergency contraception</li> </ul>	Group-based pretest and posttest conducted among the same dialogue group members at beginning and end of evaluation

Dialogue group participant: individual survey	<p>To assess knowledge and skills gained in the following:</p> <ul style="list-style-type: none"> <li>– Attitudes such as perceptions of risk/benefits of different abortion options, stigma surrounding abortion practices, ideal family size, and influencers</li> <li>– Social connections and communication efficacy within social networks around different reproductive health topics</li> <li>– Behaviors such as current contraceptive use, recent pregnancy history and outcome (posttest only), and as communication social-change agents</li> </ul>	All enrolled participants were interviewed by a facilitator or their supervisor during the first or second dialogue group meeting and as the last activity at the end of the intervention
Session attendance log	<p>To assess participant session attendance, exposure to dialogue group intervention, and group attendance totals</p>	Facilitator recorded participant attendance at each session

behaviors voluntarily reported by participants during dialogue group discussions were systematically recorded by facilitators and included a brief description of the situation, knowledge gained/changed, values/attitudes changed, decision-making process, and reported behavior or action taken. Stories were treated as evaluation data (Dart & Davies, 2003). Participant attendance records, aimed at measuring individual exposure levels, were gathered by some but not all groups. Community events—which included awareness raising about legal abortion and were either sponsored or attended by dialogue group members—were also tracked by group facilitators as a proxy measure of members acting as social change agents in their communities.

### ***Outcomes Evaluation***

Facilitators gathered all participant data because of the potential sensitivities of some topics. Given the available resources and time limits, we selected a single group matched pretest/posttest evaluation design for the outcomes evaluation. All enrolled dialogue group members were included. A structured knowledge, attitudes, and practices survey method was applied using two different data-collection instruments: an individual-level structured interview and a participatory group-level attitudinal assessment. The knowledge, attitudes, and practices instrument assessed the individual's attitudes and behaviors on a number of topics, including family planning and safe abortion (see Table 1). The interview also covered participants' self-reported ability to communicate with family and friends about different reproductive health topics. Pregnancy and pregnancy-termination histories were taken retrospectively as part of the posttest only, as a result of concerns of program staff that participants might not answer honestly, be ashamed or embarrassed, or be discouraged from participating in the groups.

The participatory group-level attitudinal assessment was carried out using the Bead Game (Wood, 1998), which is an effective technique to assess knowledge and attitude indicators that may be sensitive, self-revealing, or have stigma attached, or when respondents are unable to complete a self-administered questionnaire. Participant knowledge and beliefs about different reproductive health and abortion-related topics—including unplanned pregnancy, the new abortion law, and contraceptive use—were assessed by having each respondent place either a red (“true”) or white (“false”) bead in a container in response to a true/false question. For each question, the total numbers of red and white beads in the container are then counted and discussed by participants. The group assessment was administered by trained facilitators at the beginning and end of the evaluation period.

### ***Data Analysis***

We developed a Microsoft Access database to manage data in both Nepali and English. Analysis was conducted by the PATH team in Seattle, Washington, along with local PATH consultants and collaborators from NAMUNA and FPAN. Analysis was led by the principal investigator, a medical anthropologist and trained program evaluation specialist. Process-evaluation data analysis included the use of both quantitative and qualitative methods. Descriptive summaries of session tracking data were calculated using Access's reporting feature and then summarized in data tables. Collected narratives of new behaviors being adopted or influenced by

the dialogue group members were treated as textual data. Additional qualitative data, including other textual program-monitoring data, were sorted and synthesized following a textual-matrix format outlined in Miles and Huberman (1994). Content was organized and analyzed according to the associated measures or themes for each set of data. Outcomes-evaluation data were exported from Access and then analyzed using SPSS 13.0 and SYSTAT 11. Pretest and posttest data from the individual knowledge, attitudes, and practices interviews were examined to determine whether any significant changes among key indicators occurred among participants at the end of the evaluation period.

Because the same individuals were included at both observation periods, calculations were made using statistics appropriate for this design: (a) for binary data, the exact McNemar test of significance appropriate for repeated measures, asymptomatic two-tailed, continuity corrected; (b) for continuous data, the Wilcoxon signed-rank test, two-sided. For both statistical tests, significance levels were set at 99% (.001 or greater).

## Results

### *Participant Demographics*

Table 2 summarizes selected demographic characteristics of the sample assessed at baseline. A total of 478 participants were enrolled in the program. Most women were married, and the mean age of participants was 29.6 years. Most participants indicated their spouse was the primary earner and classified themselves as housewives (not shown). Among married women, the average number of living children was 2.6.

### *Process Evaluation Findings*

#### *Dialogue Group Sessions*

The FPAN and NAMUNA formed 26 dialogue groups of approximately 20 people each (range = 15–21) who met every 2 weeks for 7 to 9 months. Of the dialogue groups, 18 were made up of women only, 6 were primarily unmarried male and female youth, and 2 included both men and women. Of the 26 dialogue groups, 4 drew from preexisting community groups and the rest were formed as part of the intervention. A total of 374 group sessions were held during the 9-month pilot period, and groups met an average of 14 times (range = 7–26 meetings). Groups met for an average of 115 min. A total of 3 supervisors (2 men and 1 woman) and 20 facilitators (3 men and 17 women) were selected and trained in dialogue group techniques. PATH trainers made 43 monitoring visits to observe the 26 dialogue groups; each group was observed at least once. On the basis of observations of trainings, monitoring visits, and discussion with supervisors, after 9 months, 6 of the 20 facilitators were deemed “highly competent” and able to effectively carry out all IPC activities with minimal or no supervision; 10 were deemed “competent” and able to effectively carry out most activities with limited, but regular supervision; and 4 were not able to effectively carry out most activities.

#### *Stories of Reported Behavior Change*

A total of 25 stories of behavior change were recorded during sessions. The range of stories reflects the different ways in which the dialogue process prompted critical

**Table 2.** Demographic summary of dialogue group participants ( $N=478$ ) from knowledge, attitudes, and practices survey interviews

Selected background characteristics	%
Age (years)	
15–19	20
20–24	17
25–29	17
30–34	14
35–39	12
40–44	9
45 and older	11
<i>M</i> (range)	29.6 (18–70)
<i>M</i> number of living children (range)	2.6 (0–10)
Gender	
Male	8
Female	92
Have ever been married	67
Ethnicity/caste	
Newar	20
Chettrei	15
Bahun	13
Brahmin	10
Tharu	7
Other	22
Missing	13
Primary language spoken at home	
Nepali	63
Newari	13
Bhojpuri	18
Tharu	2
Other	4
Years in school	
None	18
1–6	17
7–9	18
10	17
More than 10	30
Percentage who bring in a cash income	29
Belong to other groups (in addition to Dialogues for Life)	
No other group membership	88
1–2	10
More than 2	2

inquiry, shifts in attitudes, effective negotiation skills, and resultant behavior change among its members (discussed later) and among members' broader social networks. These stories also provided key supportive evidence to changes noted in self-reported survey data.

#### *Community Events and Other Activities*

Dialogue groups initiated, were invited to, or participated in 41 community events sponsored by FPAN and NAMUNA over the 9-month period. These events sought to increase community-level awareness about the new abortion laws and knowledge about safe and unsafe abortion practices and other reproductive health topics by holding orientations for community stakeholders that reached approximately 500 additional community members.

**Table 3.** Summary of group participant assessment (Bead Game) knowledge indicators<sup>a</sup>

Selected indicators	Percentage who answered correctly		
	Pretest ( <i>n</i> = 478)	Posttest ( <i>n</i> = 426)	Percentage change %
Knowledge about reproductive biology			
1. A woman cannot get pregnant the first time she has sex. (false)	48	57	+9
2. Women have eggs, and men have sperm. The sperm must fertilize the egg in the woman's uterus for a woman to become pregnant. (true)	90	93	+3
3. A woman cannot get pregnant if the man withdraws before ejaculation. (false)	30	38	+8
Knowledge about family planning and emergency contraception			
4. A sterilization operation is a more reliable contraceptive method than withdrawal. (true)	93	93	0
5. A condom can be used more than one time and still prevent a pregnancy. (false)	57	88	+31
6. There is a pill that a woman can take to prevent pregnancy after sex (emergency contraception). (true)	65	87	+22
Knowledge about abortion			
7. It is legal for a woman to have an abortion in Nepal. (true)	77	90	+13
8. A woman must have the consent of her husband to have a legal abortion. (true)	33	79	+46
9. Any doctor can perform a safe abortion. (false)	69	90	+21

<sup>a</sup>Anonymous polling using the Bead Game in each dialogue group was carried out to obtain this information.

### Outcomes Evaluation Findings

#### Group Assessment Results

Eleven percent fewer participants (426) were included in the posttest assessment compared with the pretest (478). Collectively, knowledge levels regarding abortion and family planning—including emergency contraception and condom use—increased among dialogue group participants between the pretest and posttest surveys. Knowledge of reproductive biology showed a slightly smaller increase (see Table 3).

#### Individual Knowledge, Attitudes, and Practices Interview Results

Of the 478 participants who participated in the pretest, 408 completed the posttest interview. Analysis was carried out among the 408 participants who participated in both pretest and posttest observations.

Several important findings emerged that suggest significant changes in communication efficacy and increased ability for participants to discuss reproductive health-related issues with their spouses. As Table 4 shows, more women reported trusting their spouses to discuss sensitive topics in the posttest interviews than at pretest. We found that 48% of women at endline reported trusting their spouses to discuss abortion, compared with only 2% at baseline. Similar results were shown for family planning and unwanted pregnancy concerns (see Table 4). Overall, there

**Table 4.** Who participants trust the most in discussing sensitive topics: Communication efficacy<sup>a</sup>

Topic	Who do you trust the most (to discuss this topic with)? <sup>b</sup>	
	Pretest	Posttest
Family planning methods	Female friend (48%) <b>Spouse/partner (16%)</b> ( <i>n</i> = 330)	<b>Spouse/partner (47%)</b> Female friend (7%) ( <i>n</i> = 370)
Pregnancy-related concerns	Female friend (49%) Own sister (13%) ( <i>n</i> = 272)	<b>Spouse/partner (42%)</b> Own sister (11%) ( <i>n</i> = 331)
Unwanted pregnancy concerns	Female friend (51%) <b>Spouse/partner (15%)</b> ( <i>n</i> = 193)	<b>Spouse/partner (43%)</b> Own sister (14%) ( <i>n</i> = 259)
Men's health concerns	Female friend (36%) Own sister (29%) ( <i>n</i> = 172)	<b>Spouse/partner (71%)</b> Own sister (5%) ( <i>n</i> = 273)
Abortion-related topics	Female friend (49%) Own sister (12%) ( <i>n</i> = 116)	<b>Spouse/partner (48%)</b> Own sister (9%) ( <i>n</i> = 319)

<sup>a</sup>Data are presented for participants who completed both pretest and posttest knowledge, attitudes, and practices surveys only (*N* = 408).

<sup>b</sup>Respondents were first asked the question, "Have you discussed this topic with anyone in the past 3 months?" Those who responded "yes" were then asked, "Who do you trust the most (to discuss this topic with)?"

**Table 5.** Selected family planning indicators and social change agent indicators<sup>a</sup>

Indicator	<i>p</i>	Pretest	Posttest	Measured change during program <sup>a</sup>
Desired family size ( <i>n</i> = 408) (average) <sup>b</sup>	.000*	2.0	1.75	118 (30%) who wanted more children at pretest now wanted fewer children at posttest. 61 (15%) who wanted fewer children at pretest wanted more children at posttest.
Married participants who are currently using modern contraceptive methods ( <i>n</i> = 277).	.001*	146 (56%)	176 (65%)	229 (56%) reported no change in their views. 58 (23%) noncontraceptive users at pretest survey reported using contraceptives at posttest. 26 (10%) contraceptive users at pretest reported “no” at posttest (discontinued use of contraception).
Actions taken as social change agents				
Participants who have advised anyone to use contraceptives or visit a family planning clinic in the past 6 months ( <i>n</i> = 408).	.001**	222 (54%)	261 (64%)	79 (19%) <sup>c</sup>
Female participants who reported that someone has sought their advice about an unwanted pregnancy ( <i>n</i> = 408).	.001**	149 (37%)	209 (51%)	101 (25%) <sup>c</sup>
Female participants who reported that someone has sought their advice about abortions/pregnancy termination ( <i>n</i> = 408).	.001**	154 (38%)	195 (48%)	85 (21%) <sup>c</sup>

<sup>a</sup>Knowledge, attitudes, and practices survey interviews.  
<sup>b</sup>Desired family size was calculated in the following way: number living children + number of additional children an individual desires. Posttest ranks were then subtracted from midterm ranks to determine direction of change.  
<sup>c</sup>Participants who answered “no” at O1 and “yes” at O2.  
\*Wilcoxon signed ranked test, two-sided. Significance level set at 99% or higher; 118 negative ranks and 61 positive ranks.  
\*\*Exact McNemar significance (two-tailed). Continuity corrected. Significance level set at 99% or higher.

was a 46% increase in reported confidence levels in discussing sensitive reproductive health topics with spouses.

More participants reported wanting fewer children by the end of the study (Table 5). Modern family planning use increased significantly overall during the course of the intervention. At the beginning of the project, 44% ( $n = 131$ ) of the married participants ( $n = 277$ ) reported they were non-contraceptive users. By the end of pilot, 58 initiated contraceptive use during the course of the intervention; that is, nearly 44% of non-contraceptive users began use during the project. In contrast, only 26 married contraceptive users, or less than 18%, discontinued use at some point during the intervention (two discontinued as a result of pregnancy). Posttest data indicated that 13 participants reported a pregnancy event during the program; however,

**Table 6.** Outcomes of participants who reported a pregnancy event during project ( $n = 408$ )<sup>a</sup>

Indicator	Total
Did you or your spouse become pregnant since joining the Dialogues for Life program?	
Male participants who reported “yes”	1 (<1%)
Female participants who reported “yes”	12 (3%)
No pregnancy event reported	384 (94%)
Not sure	11 (3%)
How did you feel at the time?	
I (my spouse) wanted to become pregnant	3
I (my spouse) wanted to wait	5
I (my spouse) did not want to have anymore children	2
Was your pregnancy because of “galti” (mistake), sudden, or accidental?	3
Was your pregnancy because no family planning methods were used?	9
Was your pregnancy due to a failure of family planning methods?	1
Before you were pregnant, did you have an understanding with your husband to have another child?	9
Pregnancy outcome	
Live birth	6
Miscarriage	0
Stillbirth	0
Induced abortion	2
Currently pregnant	5
Abortion services	
Family Planning Association of Nepal	1
Marie Stopes	1

<sup>a</sup>Data are from participants who took O1 and O2 surveys only. Information collected retrospectively at O2 only. Collected behavior change stories from dialogue group members reported in Table 3 suggest that 3 group members went to abortion services. Only 2 participants reported seeking abortion services in the posttest interviews, however. Data were not collected that could match interview responses with behavior changes stories because of concerns regarding dialogue group members' privacy.

only 2 individuals reported they were unwanted, and both had abortions at legally recognized and safe nongovernmental organization facilities (Table 6).

The number of participants who began acting as key change agents in their communities increased significantly according to a number of indicators over the course of the study (Table 5). Matched tests of significance set at .001 or higher clearly demonstrated this effect. Significantly more participants reported that someone had sought their advice about an unwanted pregnancy or abortion between the two observation periods. Of participants, 79 (19%) said they began advising others to use contraceptives or visit a family planning clinic during the intervention. By the end of the project, 51% reported that family members, neighbors, and other community members were seeking advice on unwanted pregnancy, compared with 37% at project onset. Additional tracking data from NAMUNA and FPAN documented 136 referrals by dialogue group members between February and May 2006, including 39 referrals for abortion services and the rest for family planning or other reproductive health services. Dialogue group participants followed up to confirm that desired services were received.

## Discussion

Our outcomes evaluation does suggest that certain knowledge, attitudes, and behaviors can be changed through a dialogue-based IPC intervention even with a short intervention duration, and our process evaluation suggests that community-based trainers are able to effectively implement such an intervention. These results highlight the need for additional rigorous field studies.

Our study's findings, particularly around increased IPC on sensitive topics, also highlight the need for interventions that use dialogue and reflection to influence an individual's ability to communicate and negotiate with the people closest to them. In low-resource settings, communications interventions around safe abortion continue to focus on large-scale, didactic health education approaches, which are unlikely to address deeply embedded social and cultural processes that influence people's behavior. The World Health Organization's (2003) comprehensive technical and policy guidance for health systems around safe abortion, for example, recognizes the need for "broad education programs" to provide basic information on how pregnancy occurs, early signs of pregnancy, contraception, and where and how to obtain services, but stops short of addressing the social and cultural context in which women will receive and process this information. Reports of similar community-level interventions among women and their families to reduce unsafe abortion with which we could draw further comparisons are not readily available in the literature.

### *The Role of Dialogue-Based IPC in Addressing Unsafe Abortion*

Earlier in this article, we outlined evidence showing how a dialogue-based IPC process can help to reduce unsafe abortions at the community level by promoting openness and discussion about sensitive, stigmatizing, or exposing topics among social networks. Key findings here support this body of research. The significant change we observed in participants' reported ability to discuss sensitive issues with their spouses and the observed increase in family planning uptake among previous nonusers signifies that dialogue groups can foster the needed communication skills for couples to choose to prevent and safely manage unplanned or unwanted pregnancy.

Dialogue group members also confirmed another benefit of IPC interventions: Many became social change agents who diffused accurate information and behavior change stories throughout their communities, a general process outlined in Figueroa et al. (2002) as a key outcome in dialogue-based interventions. In our intervention, participants sponsored and participated in numerous community events to raise awareness of safe abortion; provided personal support, shared knowledge, made referrals and followed them up; and helped community members access needed reproductive health services. Because the implementation timeframe was so short, it was not possible to fully appreciate the extent of magnification of success that took place as a result of this intervention. Collected stories, used as supportive evidence for our outcomes evaluation (Labonte et al., 1999), include members who consistently shared their behavior change stories during sessions, a dialogue group member who agreed to share her story of initiating contraception with a group other than her own, and at least four stories that were printed, distributed in communities, and broadcast on local radio.

### ***Programmatic Recommendations***

After the completion of the pilot in early April 2006, 18 dialogue groups initially elected to continue running with minimal support from FPAN, NAMUNA, and PATH. FPAN and NAMUNA now apply the Dialogues for Life tools in separate projects such as traditional healer trainings, HIV/AIDS prevention, and gender equity projects. PATH and NAMUNA trained staff from the Canadian Centre for International Studies and Cooperation to use this approach in their community health and governance program. Resource limitations prevented the team from meeting additional requests from the government and nongovernmental organizations for training, technical assistance, and national-level radio programming.

On the basis of this experience, we recommend processes to ensure that dialogue groups can operate in resource-poor settings. First, capacity building and evaluation would need to be centralized within one institution—likely a large government or large nongovernmental organization that has stable funding, a national reach, a mandate to carry out capacity building, a stake in dialogue-based approaches, and the health issues to be addressed. Local community-based organizations with ongoing community programs can offer facilitators who are then paired with facilitators from this central institution for training, supervision, and coaching. The training organization should solicit and train people with facilitation experience and interest from government departments and nongovernmental organizations. These new facilitators could be formed into a loose network of coaches whose time is donated by their employing organizations and who have mastered the dialogue approach and are able to practice and teach it. Not only will they train new facilitators, but they will also accompany them into the field as new projects begin in a long-term mentoring process. Over time, depending on the level of continued support, the central institution could withdraw and leave behind a strong organization of coaches and trainers versed in dialogue-based interventions.

After demonstrating through this project that a dialogue-based IPC approach is effective in changing certain attitudes and intentions, resulting in the adoption of healthier behaviors, we believe the benefits of this intensive process should be linked to new or existing large-scale education, popular entertainment education, or other mass media communications campaigns in order to amplify their effect

(Dutta & Basnyat, 2008; Singhal & Rogers, 2003; Valente & Fosados, 2006). Dialogue group activities magnified through mass media to national audiences could have a greater transformational effect than just IPC interventions operating in isolation. This is happening in Nepal, including through an HIV/AIDS program developing regional social networks for advocacy through women's dialogue groups (D. Gyanuji, personal communication, 2009).

The findings reported here are subject to several important limitations. First, the actual intervention period was less than one year in duration. In addition, many outcomes indicators were based on self-report by the dialogue group members or facilitators. Furthermore, we had no comparison group, and although there is a 99.9% likelihood that our findings are not random, causal claims to the intervention cannot be made. The analysis plan did try to factor in these considerations by following the same study participants over the observation period for a more robust design, using appropriate statistics for repeated measure studies, and setting tests of significance conservatively. However, difference scores were also consistent with process evaluation data, which gave us more confidence in our findings. We are also confident (on the basis of NAMUNA's subsequent programmatic experience) that had the intervention lasted longer, additional positive outcomes would likely have emerged. Because abortion is a rare event to begin with, an assessment of the effect of the intervention on reducing unsafe abortions could not be determined. Last, session start-up dates varied among the dialogue groups as a result of delays and a staggered training schedule. Although some groups actually met for a slightly longer duration, the observation period for the evaluation was constant across the groups.

### Conclusion

Even in settings in which abortion is legal, women face a variety of obstacles to accessing safe services. Large-scale educational and media-based health communications campaigns can be an effective means of increasing awareness of safe abortion services. However, evidence shows that even women who know abortion is legal and where they can obtain services may not do so because of shame and fear, or because decision-making authority rests with their husband or in-laws. The Dialogues for Life intervention aimed to intervene on these factors by enabling women to seek the social support they need to prevent unplanned pregnancies and unsafe abortions. Our findings—that such an intervention is possible and can affect primarily knowledge and attitudes, and secondarily behavior in low-resource settings—have implications not only for programmers working in sexual and reproductive health in Nepal, but also for public health practitioners in developing countries more broadly. For example, the approach has been widely used by PATH in HIV-prevention work in East Africa and applied by some of our Nepali colleagues as part of their community-based HIV/AIDS interventions as well. Moving forward, more evidence is needed on actual health effects of such programs, including in a variety of settings and on a larger scale.

### References

- Academy for Educational Development/CHANGE Project & Save the Children/Malawi. (2002). *Guide to diagnostic role play*. Lilongwe, Malawi: Author.
- Airhihenbuwa, C. (1995). *Health and culture: Beyond the Western Paradigm*. Thousand Oaks, CA: Sage.

- Berer, M. (2000). Making abortions safe: A matter of good public health policy and practice. *Bulletin of the World Health Organization*, 78, 580–592.
- Brems, S., & Griffiths, M. (1993). Health women's way: Learning to listen. In M. Koblinsky, J. Timyan & J. Gay (Eds.), *The health of women: A global perspective* (pp. 255–274). Boulder, CO: Westview Press.
- Center for Research on Environment Health & Population Activities. (2005). *BCC strategy development for accessing safe abortion care in Nepal: A formative needs assessment*. Kathmandu, Nepal: Author.
- Daniel, E. E., Masilamani, R., & Rahman, M. (2008). The effect of community-based reproductive health communication interventions on contraceptive use among young married couples in Bihar, India. *International Family Planning Perspectives*, 34, 189–197.
- Dart, J., & Davies, R. J. (2003). A dialogical, story-based evaluation tool: The most significant change technique. *American Journal of Evaluation*, 24, 137–155.
- Datta, L. E. (1997). Multimethod evaluations: Using case studies together with other methods. In E. Chelimsky & W. R. Shadish (Eds.), *Evaluation for the 21st century: A handbook* (pp. 344–359). Newbury Park, CA: Sage.
- Duggan, A. (2006). Understanding interpersonal communication processes across health contexts: Advances in the last decade and challenges for the next decade. *Journal of Health Communication*, 11, 93–108.
- Dutta, M., & Basnyat, I. (2008). The radio communication project in Nepal: A culture-centered approach to participation. *Health Education and Behavior*, 35, 442–454.
- Family Health Division, Ministry of Health, Government of Nepal; Center for Research on Environment Health and Population Activities; Forum for Women Law and Development; Ipas; & PATH. (2005). *Women's right to choose: Partnerships for safe abortion in Nepal*. Kathmandu, Nepal: Forum for Women Law and Development.
- Fetters, T., Vonthanak, S., Picardo, C., & Rathavy, T. (2008). Abortion-related complications in Cambodia. *BJOG: An International Journal of Obstetrics & Gynaecology*, 115, 957–968.
- Figueroa, M. E., Kincaid, D. L., Manju, R., & Lewis, G. (2002). *Communication for social change: An integrated model for measuring the process and its outcomes*. New York: The Rockefeller Foundation.
- Frechtling, J. A., & Sharp, L. M. (Eds.) (1997). *User-friendly handbook for mixed method evaluations*. Arlington, VA: National Science Foundation.
- Fredrick, B. (2007). Eliminating unsafe abortion worldwide. *Lancet*, 370, 1295–1297.
- Jewkes, R. K., Gumedde, T., Westaway, M. S., Dickson, K., Brown, H., & Rees, H. (2005). Why are women still aborting outside designated facilities in metropolitan South Africa? *BJOG: An International Journal of Obstetrics & Gynaecology*, 112, 1236–1242.
- Kumar, A., Hessini, L., & Mitchell, E. M. (2009). Conceptualising abortion stigma. *Culture, Health & Sexuality*, 11, 625–639.
- Labonte, R., Feather, J., & Hills, M. (1999). A story/dialogue method for health promotion knowledge development and evaluation. *Health Education Research*, 14, 39–50.
- Manandhar, D. S., Osrin, D., Shrestha, B. P., Mesko, N., Morrison, J., Tumbahangphe, K. M. et al. (2004). Effect of a participatory intervention with women's groups on birth outcomes in Nepal: Cluster-randomised controlled trial. *Lancet*, 364, 970–979.
- Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis*. Newbury Park, CA: Sage.
- Morrill, A. C., & Noland, C. (2006). Interpersonal issues surrounding HIV counseling and testing, and the phenomenon of “testing by proxy.” *Journal of Health Communication*, 11, 183–198.
- Morroni, C., Myer, L., & Tibazarwa, K. (2006). Knowledge of the abortion legislation among South African women: A cross-sectional study. *Reproductive Health*, 3, 7.
- Nyanzi, S., Nyanzi, B., & Bessie, K. (2005). “Abortion? That's for women!” Narratives and experiences of commercial motorbike riders in south-western Uganda. *African Journal of Reproductive Health*, 9, 142–161.

- PATH. (2005). *Getting down to details: A draft planning guide for sparking dialogue on unsafe abortion*. Seattle, WA: Author.
- PATH. (2007). *Dialogues for Life: Training facilitators in dialogue-based behavior change communication for reproductive health*. Seattle, WA: Author. Retrieved November 16, 2009 from [http://www.path.org/files/RH\\_dfl.pdf](http://www.path.org/files/RH_dfl.pdf)
- PATH & Ipas. (2005). *Sparking dialogue: Initiating community conversations on safe abortion*. Seattle, WA: Author. Retrieved November 16, 2009 from <http://www.path.org/publications/details.php?i=1097>
- Puri, M., Ingham, R., & Matthews, Z. (2007). Factors affecting abortion decisions among young couples in Nepal. *Journal of Adolescent Health, 40*, 535–542.
- Rogers, E. M. (1995). *Diffusion of innovations* (4th ed.). New York: Free Press.
- Rogoff, B., Matusov, B., & White, S. (1996). Models of teaching and learning: Participation in a community of learners. In D. Olson & N. Torrance (Eds.), *The handbook of cognition and human development* (pp. 388–414). Oxford, England: Blackwell.
- Singh, M., & Jha, R. (2007). Abortion legalized: Challenges ahead. *Kathmandu University Medical Journal, 5*, 95–97.
- Singhal, A., & Rogers, E. M. (2003). *Combatting AIDS: Communication strategies in action*. New Delhi, India: Sage.
- Valente, T. W., & Fosados, R. (2006). Diffusion of innovations and network segmentation: The part played by people in promoting health. *Sexually Transmitted Disease, 33*, S23–S31.
- Vekemans, M., de Silva, U., & Hurwitz, M. (2008). *Access to safe abortion: A tool for assessing legal and other obstacles*. London: International Planned Parenthood Foundation.
- Wood, S. (1998). The Bead Game: A useful evaluation tool. *Footsteps, 36*, 16.
- World Health Organization. (2003). *Safe abortion: Technical and policy guidance for health systems*. Geneva, Switzerland: Author.
- World Health Organization. (2007). *Unsafe abortion: Global and regional estimates of the incidence of unsafe abortion and associated mortality in 2003* (5th ed.). Geneva, Switzerland: Author.